Claims

1. A method for quantitatively and/or qualitatively detecting one or more components in one or more samples, said component capable of binding to a probe, comprising the steps in the following order:

a) applying one or more samples onto a solid support,

b) optionally storing solid support of step a) at a temperature between 0 and 10 degrees Celsius,

c) incubating solid support of step a) or b) with one or more tagged probes,

d) incubating solid support with a monoclonal or polyclonal antibody directed against the tag of step c), said antibody raised in species A and said antibody optionally labelled with metal particle,

e) incubating solid support with antibody conjugate, said polymer comprising:

- one or more antibodies, anti-A, directed against immunoglobulins of species A, - one or more antibodies, anti-B, directed against immunoglobulins of species B,
- optionally one or more substances which directly or indirectly cause a quantitative colour change compared with the solid support,

f) incubating the solid support with a polypeptide capable recognition by anti-B antibodies, said polypeptide labelled with one or more substances which directly or indirectly cause a quantitative colour change compared with the solid support, and

g) optionally incubating the solid support with a metal enhancement reagent and/or a colour change reagent that is a suitable substrate of an enzyme attached to the antibody conjugate, and

h) reading the solid support to quantitatively and/or qualitatively detect said components.

2. A method according to claim 1 wherein step a) is

a) applying one or more probes onto a solid support,

and step c) is

c) incubating solid supports with tag-labelled sample,

3. A method according to claims 1 and 2 wherein step c) is absent and step d) is

d) incubating solid supports with metal-particle-labelled anti-component monoclonal or polyclonal antibody, said antibody raised in species A.

4. A method according to any of claims 1 to 3 further comprising the steps, after step f), of:

f-1) repeating steps e) to f), and

f-2) optionally repeating step f-1).

5. A method according to claims 2 to 4 wherein the solid support is supplied with probe pre-applied, and step a) is not performed by the user.

6. A method according to claims 1 to 5 wherein the reading of step h) comprises the use of a colour chart.

7. A method according to claims 1 to 6 wherein the reading of step h) comprises the use of a device suitable for detecting changes in conductance and/or current across the solid support at the positions at which said samples are applied.

8. A kit for quantitatively and/or qualitatively detecting one or more components in one or more samples, said component capable of binding to a probe, comprising:

a) one or more solid supports,

b) a container in which a quantity antibody conjugate is present, said conjugate comprising:

- one or more antibodies, anti-A, directed against immunoglobulins of species A, - one or more antibodies, anti-B, directed against immunoglobulins of species B,

-optionally one or more substances which directly or indirectly cause a quantitative colour change compared with the solid support.

9. A kit according to claim 8 further comprising a container in which a quantity of anti-tag polyclonal or monoclonal antibodies is present, said antibodies raised in species A.

10. A kit according to claims 8 and 9 wherein the solid support is pre-loaded with probes capable of binding to said components.

11. A kit according to any of claims 8 to 10 for use in a method of claims 1 to 7.

12. A kit according to any of claims 8 to 11 for use in detecting, diagnosing and/or monitoring the progress of a Human Papillomavirus (HPV) infection and wherein one or more molecular probes is capable of binding to an HPV component.

13. A kit according to claim 12 wherein said component is a coat polypeptide.

14. A kit according to claim 13 wherein said component is a gene selected from the group consisting of HPV 16, HPV18, HPV 31, HPV 33, HPV 35, HPV 52 and HPV 58.

15. A kit according to any of claims 8 to 11 for use in detecting, diagnosing and/or monitoring the progress of one or more of the disease states in humans as listed in Table 1, by detecting a polypeptide and/or nucleic acid corresponding to the listed component.

16. A kit according to any of claims 8 to 11 for use in detecting, diagnosing and/or monitoring the progress infections caused by one or more of one or more of HCV, HIV, HBV, HTLV, mycobacteria, *Staphylococcus aureus*.

17. A kit according to any of claims 8 to 11 for use in detecting, diagnosing and/or monitoring the progress neurodegenerative diseases by detecting one or more of beta-amyloids, hTAU, phosphoTAU and APOE.

18. A kit according to any of claims 8 to 11 for use in detecting, diagnosing and/or monitoring the progress of malignant diseases, autoimmunity or allergy related diseases by detecting one or more of ANA, Jo-1, Myeloperoxidase, RNP, Scl-70, Sm, SS-A, IgE, IgG-subclasses and circulating antibodies.

19. A kit according to any of claims 8 to 11 for use in environmental testing of water for bacteria.

20. A kit according to any of claims 8 to 11 for use in environmental testing of food components for genetically modified components, listeria and salmonella.

21. A method for staining components in cell and/or tissue sections suitable for visualisation using microscopy comprising the steps of:

a) incubating said section with one or more tagged probes directed against a component,

b) incubating said section with metal labelled anti-tag monoclonal or polyclonal antibody, said antibody raised in species A,

c) incubating said section with antibody/enzyme polymer, said polymer comprising at least:

- one or more antibodies, anti-A, directed against immunoglobulins of species A, - one or more antibodies, anti-B, directed against immunoglobulins of species B,

-optionally one or more substances which directly or indirectly cause a quantitative colour change,

d) incubating the section with a polypeptide capable recognition by anti-B antibodies, said polypeptide labelled with one or more substances which directly or indirectly cause a quantitative colour change, and

e) optionally incubating the section with a metal enhancement reagent and/or a colour change reagent that is a suitable substrate of an enzyme attached to the antibody conjugate.

22. A method according to claims 21 wherein step a) is absent and step b) is

b) incubating section with metal particle labelled anti-component monoclonal or polyclonal antibody, said antibody raised in species A.

23. A method according to any of claims 21 and 22 further comprising the steps, after step d), of:

d-1) repeating steps c) to d), and

d-2) optionally repeating step d-1).

24. A kit for staining components in cell and/or tissue sections suitable for visualisation using microscopy comprising:

a container in which a quantity of antibody/enzyme polymer antibody, said polymer comprising at least:

- one or more antibodies, anti-A, directed against immunoglobulins of species A, - one or more antibodies, anti-B, directed against immunoglobulins of species B,

- optionally one or more substances which directly or indirectly cause a quantitative colour change.

25. A kit according to claim 24 further comprising a container in which a quantity of anti-tag polyclonal or monoclonal antibodies is present, said antibodies raised in species A.

26. A kit according to any of claims 24 to 25 for use in a method of claims 21 to 23.

27. A method according to claim 1 to 7, 21 to 23, and a kit according to claims 8 to 20 and 24 to 26 wherein said metal particle is gold.

28. A method according to claim 1 to 7, 21 to 23, and a kit according to claims 8 to 20 and 24 to 27 wherein said tag is biotin.

29. A method according to claim 1 to 7, 21 to 23, and a kit according to claims 8 to 20 and 24 to 28 wherein said polypeptide capable recognition by anti-B antibodies is labelled with gold particles and/or alkaline phosphatase.